In the Claims:

1. (Original) A method of fabricating microstructures comprising:

impinging a radiation beam through a substrate that is transparent thereto into a radiation sensitive layer on the substrate to image the microstructures in the radiation sensitive layer.

2. (Original) A method according to Claim 1 wherein the radiation sensitive layer is a negative photoresist layer such that portions of the negative photoresist layer that are exposed to the radiation beam remain after development.

3. (Original) A method according to Claim 2 wherein the negative photoresist layer is thicker than the microstructures and wherein impinging comprises impinging a radiation beam through a substrate that is transparent thereto into a negative photoresist layer on the substrate to image buried microstructures in the negative photoresist layer, adjacent the substrate.

4. (Original) A method according to Claim 2 wherein at least some of the microstructures include a base and a top that is narrower than the base and wherein impinging comprises impinging a radiation beam through a substrate that is transparent thereto into a negative photoresist layer on the substrate to image microstructures in the negative photoresist layer with the bases adjacent the substrate and the tops remote from the substrate.

5. (Original) A method according to Claim 2 wherein the negative photoresist layer is of variable thickness thereacross, wherein a minimum thickness of the negative photoresist layer is thicker than the microstructures and wherein impinging comprises impinging a radiation beam through a substrate that is transparent thereto into a negative photoresist layer on the substrate to image buried microstructures beneath the negative photoresist layer, adjacent the substrate, that are independent of the variable thickness of the negative photoresist layer.

6. (Original) A method according to Claim 2 wherein the negative photoresist layer includes impurities thereon, remote from the substrate, wherein the negative photoresist layer is thicker than the microstructures and wherein impinging comprises impinging a radiation beam through a substrate that is transparent thereto into a negative photoresist layer on the substrate to image buried microstructures in the negative photoresist layer, adjacent the substrate, that are not distorted by the impurities.

7. (Original) A method according to Claim 1 wherein the substrate is a flexible substrate.

8. (Original) A method according to Claim 1 wherein the radiation sensitive layer is on a cylindrical platform such that the substrate is on the radiation sensitive layer remote from the cylindrical platform, and wherein impinging comprises:

rotating the cylindrical platform about an axis thereof while simultaneously axially rastering the radiation beam through the substrate across at least a portion of the radiation sensitive layer to image the microstructures in the radiation sensitive layer.

9. (Original) A method according to Claim 8 further comprising simultaneously translating the cylindrical platform and/or radiation beam axially relative to one another.

10. (Original) A method according to Claim 9 further comprising simultaneously continuously varying amplitude of the radiation beam.

11. (Original) A method according to Claim 1 wherein the substrate is at least about one square foot in area.

12. (Original) A method according to Claim 1 wherein impinging is performed continuously on the substrate for at least about 1 hour.

13. (Original) A method according to Claim 1 wherein impinging is performed continuously on the substrate for at least about 1 hour to fabricate at least about one million microstructures.

14. (Original) A method according to Claim 1 wherein the microstructures comprise optical and/or mechanical microstructures.

15. (Original) A method according to Claim 1 further comprising:

developing the microstructures that are imaged in the radiation sensitive layer to provide a microstructure master.

16. (Original) A method according to Claim 1 wherein the substrate is cylindrical, ellipsoidal or polygonal in shape.

17. (Original) A method according to Claim 1 further comprising translating the substrate and/or radiation beam relative to one another while impinging the radiation beam.

18. (Original) A method according to Claim 15 further comprising:

forming a plurality of second generation stampers directly from the master; and

forming a plurality of third generation microstructure end products directly from a stamper.

19.-20. (Canceled)

21. (Original) A method of fabricating microstructures comprising:

impinging a radiation beam into a negative photoresist layer to image the microstructures in the negative photoresist layer, such that portions of the negative photoresist layer that are exposed to the radiation beam remain after development.

22. (Original) A method according to Claim 21 wherein the negative photoresist layer is thicker than the microstructures and wherein impinging comprises impinging a radiation beam into a negative photoresist layer to image buried microstructures in the negative photoresist layer.

23. (Original) A method according to Claim 21 wherein the negative photoresist layer is of variable thickness thereacross, wherein a minimum thickness of the negative photoresist layer is thicker than the microstructures and wherein impinging comprises impinging a radiation beam into the negative photoresist layer to image buried microstructures beneath the negative photoresist layer that are independent of the variable thickness of the negative photoresist layer.

24. (Original) A method according to Claim 21 wherein the negative photoresist layer includes impurities thereon, wherein the negative photoresist layer is thicker than the microstructures and wherein impinging comprises impinging a radiation beam into the negative photoresist layer on the substrate to image buried microstructures in the negative photoresist layer that are not distorted by the impurities.

25. (Original) A method according to Claim 21 wherein the negative photoresist layer is on a cylindrical platform and wherein impinging comprises:

rotating the cylindrical platform about an axis thereof while simultaneously axially rastering the radiation beam across at least a portion of the negative photoresist layer to image the microstructures in the negative photoresist layer.

26. (Original) A method according to Claim 25 further comprising simultaneously translating the cylindrical platform and/or radiation beam axially relative to one another.

27. (Original) A method according to Claim 26 further comprising simultaneously continuously varying amplitude of the radiation beam.

28. (Original) A method according to Claim 21 wherein the negative photoresist layer is at least about one square foot in area.

29. (Original) A method according to Claim 21 wherein impinging is performed continuously on the negative photoresist layer for at least about 1 hour.

30. (Original) A method according to Claim 21 wherein impinging is performed continuously on the negative photoresist layer for at least about 1 hour to fabricate at least about one million microstructures.

31. (Original) A method according to Claim 21 wherein the microstructures comprise optical and/or mechanical microstructures.

32. (Original) A method according to Claim 21 wherein the negative photoresist layer is cylindrical, ellipsoidal or polygonal in shape.

33. (Original) A method according to Claim 21 further comprising translating the substrate and/or radiation beam relative to one another, while impinging the radiation beam.

34. (Original) A method according to Claim 31 further comprising:

developing the microstructures that are imaged in the negative photoresist layer to provide a microstructure master.

35. (Original) A method according to Claim 34 further comprising:

forming a plurality of second generation stampers directly from the master; and

forming a plurality of third generation microstructure end products directly from a stamper.

36.-37. (Canceled)

38. (Original) A method of fabricating microstructures comprising:

impinging a laser beam through a substrate that is transparent thereto into a negative photoresist layer on the substrate to image the microstructures in the negative photoresist layer, wherein at least some of the microstructures include a base adjacent the substrate and a top that is narrower than the base, remote from the substrate.

39. (Original) A method according to Claim 38 wherein the substrate is a flexible substrate.

40. (Original) A method according to Claim 38 wherein the negative photoresist layer is on a cylindrical platform such that the substrate is on the negative photoresist layer remote from the cylindrical platform, and wherein impinging comprises:

rotating the cylindrical platform about an axis thereof while simultaneously axially rastering the laser beam through the substrate across at least a portion of the negative photoresist layer to image the microstructures in the negative photoresist layer.

41. (Original) A method according to Claim 40 further comprising simultaneously translating the cylindrical platform and/or laser beam axially relative to one another.

42. (Original) A method according to Claim 41 further comprising simultaneously continuously varying amplitude of the laser beam.

43. (Original) A method according to Claim 38 wherein the microstructures comprise optical and/or mechanical microstructures.

44. (Original) A method according to Claim 38 further comprising:

developing the microstructures that are imaged in the photoresist layer to provide a microstructure master.

45. (Original) A method according to Claim 44 further comprising:

forming a plurality of second generation stampers directly from the master; and

forming a plurality of third generation microstructure end products directly from a stamper.

46.-107. (Canceled)